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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

- In re the Application of

Taiji FURUKAWA et al.

Application No.: 10/580,532

Filed: May 25, 2006

Docket No.: 128186

For: T-TYPE CALCIUM CHANNEL BLOCKER

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

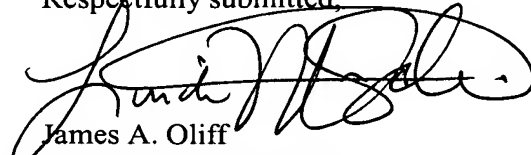
Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. Relevance of one or more non-English language reference is discussed in the present specification. See References 4 and 6-18.
- ☒ 3. In accordance with 37 CFR §1.98(a)(2)(ii), copies of any U.S. patents and patent application publications are not attached.
- ☒ 4. An English translation of one or more non-English language reference cited herein is attached hereto. See Reference 21.
- ☒ 5. An English language Abstract of one or more non-English language reference is attached hereto. See References 4 and 6-18.
- ☒ 6. A computer-generated English language translation of one or more Japanese Patent Publication cited herein has been obtained from the website of the Japanese Patent Office ([http://www.jpo.go.jp]), and is attached, but has not been reviewed for accuracy. See Reference 18.

- ☒ 7. One or more reference cited herein was cited in the International Search Report. An English language version of the International Search Report is attached for the Examiner's information. See References 2, 4-7 and 19-25.
- ☒ 8. Reference 1 corresponds to reference 6. Reference 3 corresponds to reference 7.

Respectfully submitted,



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JAO:LMS/jdb

Date: September 21, 2006

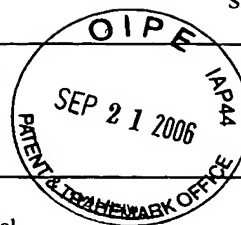
**OLIFF & BERRIDGE, PLC**  
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Form PTO-1449  
(REV. 1/06)US Dept. of Commerce  
PATENT & TRADEMARK OFFICEATTY DOCKET NO.  
128186APPLICATION NO.  
10/580,532

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS  
Taiji FURUKAWA et al.FILING DATE  
May 25, 2006

## U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Document Number	Date	Name
	1	4,576,934	3/18/1986	Seto et al.

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Document Number	Date	Country	With English Abstract	With English Translation
	2	WO 03/062201 A1	7/31/2003	WIPO		
	3	EP 230 944 A1	8/5/1987	Europe		
	4	JP A 1-275591	11/6/1989	Japan	X	
	5	WO 2004/024153	3/25/2004	WIPO		
	6	JP A 60-69089	4/19/1985	Japan	X	
	7	JP A 63-233992	9/29/1988	Japan	X	
	9	JP A 61-030591	2/12/1986	Japan	X	
	9	JP A 61-063688	4/1/1986	Japan	X	
	10	JP A 62-169795	7/25/1987	Japan	X	
	11	JP A 62-169796	7/25/1987	Japan	X	
	12	JP A 58-167569	10/3/1983	Japan	X	
	13	JP A 55-000301	1/5/1980	Japan	X	
	14	JP A 62-174017	7/30/1987	Japan	X	
	15	JP A 60-097956	5/31/1985	Japan	X	
	16	JP A 49-108082	10/14/1974	Japan	X	
	18	JP A 2-138221	5/28/1990	Japan	X	
	18	JP A 2002-226376	8/14/2002	Japan	X	X

## OTHER DOCUMENTS

Examiner Initials	Cite No.	(Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER

DATE CONSIDERED

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Date: September 21, 2006

Form PTO-1449 (REV. 1/06)		US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. 128186		APPLICATION NO. 10/580,532	
INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)				APPLICANTS Taiji FURUKAWA et al.  FILING DATE May 25, 2006			
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OTHER DOCUMENTS							
Examiner Initials	Cite No.	(Including Author, Title, Date, Pertinent Pages, etc.)					
	19	K. HARADA et al.; "Clinical Efficacy of Efonidipine Hydrochloride, a T-type Calcium Channel Inhibitor, on Sympathetic Activities - Examination Using Spectral Analysis of Heart Rate/Blood Pressure Variables and <sup>123</sup> I-Metaiodobenzylguanidine Myocardial Scintigraphy," <i>Circulation Journal</i> , Vol. 67, February 2003, pp. 139-145.					
	20	P. KUMAR et al.; "Synthesis and Evaluation of a New Class of Nifedipine Analogs with T-Type Calcium Channel Blocking Activity," <i>Molecular Pharmacology</i> , 2002, Vol. 61, No. 3, pp. 649-658.					
	21	H. SUZUKI et al.; "Antihypertensive Effects and Reducing Effects on Proteinuria of Cilnidipine on Hypertension Patients with Nephrosclerosis," <i>Therapeutic Research</i> , 2000, Vol. 21, No. 4, pp. 760-762.					
	22	D. BILICI et al.; "Protective Effect of T-Type Calcium Channel Blocker in Histamine-Induced Paw Inflammation in Rat," <i>Pharmacological Research</i> , 2001, Vol. 44, No. 6, pp. 527-531.					
	23	C. BAYLIS et al.; "Comparison of L-Type and Mixed L- and T-Type Calcium Channel Blockers on Kidney Injury Caused by Deoxycorticosterone-Salt Hypertension in Rats," <i>American Journal of Kidney Diseases</i> , 2001, Vol. 38, No. 6, pp. 1292-1297.					
	24	W. MCCALMONT et al.; "Design, Synthesis, and Biological Evaluation of Novel T-Type Calcium Channel Antagonists," <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, Vol. 14, No. 14, pp. 3691-3695.					
	25	D. PORCELLO; "Actions of U-92032, a Type Ca <sup>2+</sup> Channel Antagonist, Support a Functional Linkage Between I <sub>t</sub> and Slow Intrathalamic Rhythms," <i>J Neurophysiol.</i> , 2003, Vol. 89, No. 1, pp. 177-185.					
	26	H. MASUMIYA et al.; "Effects of Ca <sup>2+</sup> channel antagonists on sinus node: Prolongation of late phase 4 depolarization by efonidipine," <i>European Journal of Pharmacology</i> ; Vol. 335; 1997; pp. 15-21.					
	27	P. MULDER et al.; "Increased Survival After Long-Term Treatment with Mibefradil, a Selective T-Channel Calcium Antagonist, in Heart Failure"; <i>JACC</i> ; Vol. 29, No. 2; February 1997; pp. 416-421.					
	28	J. VILLAME et al.; "Effects of Mibefradil, a T- and L-Type Calcium Channel Blocker, on Cardiac Remodeling in the UM-X7.1 Cardiomyopathic Hamster"; <i>Cardiovascular Drugs and Therapy</i> ; Vol. 15; 2001; pp. 41-48.					
	29	S. FAREH et al.; "The T-Type Ca <sup>2+</sup> Channel Blocker Mibefradil Prevents the Development of a Substrate for Atrial Fibrillation by Tachycardia-Induced Atrial Remodeling in Dogs"; <i>Circulation</i> ; Vol. 100; November 23, 1999; pp. 2191-2197.					
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Examiner Initials	Cite No.	(Including Author, Title, Date, Pertinent Pages, etc.)					
	30	G. NOLL et al.; "Comparative Pharmacological Properties among Calcium Channel Blockers: T-Channel versus L-Channel Blockade"; Cardiology; Vol. 89; Supp. 1; 1998; pp. 10-15.					
	31	S. LENGLET et al.; "Activation of 5-HT <sub>7</sub> Receptor in Rat Glomerulosa Cells is Associated with an Increase in Adenylyl Cyclase Activity and Calcium Influx through T-Type Calcium Channels"; Endocrinology; Vol. 143, No. 5; pp. 1748-1760.					
	32	J. MCCALLUM et al.; "Loss of T-type Calcium Current in Sensory Neurons of Rats with Neuropathic Pain"; <i>Anesthesiology</i> ; Vol. 98, No. 1; 2003; pp. 209-216.					
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